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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,368	04/21/2006	Jan Ove Gjerde	BRYN/0009	5655

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EXAMINER
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BORISSOV, IGOR N

ART UNIT	PAPER NUMBER
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3628

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/559,368	<b>Applicant(s)</b> GJERDE ET AL.	
	<b>Examiner</b> Igor N. Borissov	<b>Art Unit</b> 3628	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 November 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

Amendment received on 11/24/2008 is acknowledged and entered. Claims 1, 13, 20, 27, 34, 36-42 have been amended. New claims 43-46 have been added. Claims 1-46 are currently pending in the application.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 36-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For claims 36 and 40, it is totally unclear what is being claimed here. Is applicant just claiming a data signal (in a carrier wave), is the claim directed to a method as the body of the claim may suggest, or intended use of a system? The signal represents instructions, but what is the signal? The fact that it represents instructions that do A, B, and C, defines nothing about the signal. Maybe this is supposed to be a method claim? The scope of this claim is not clear.

Claim 41 is confusing, because it is not clear which part of the claim represents known features of the prior art or states intended use of the invention, and which recites novel features of the invention.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

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Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 36-39 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

For claim 36, the examiner has concluded that the claim is directed to non-statutory subject matter because a "signal" is not considered statutory. A signal (in a carrier wave) is not a tangible thing. A signal is not something that is eligible for patent rights, because a propagating signal is not a "process, machine, manufacture, or composition of matter." Those four categories define the explicit scope and reach of subject matter patentable under 35 U.S.C. §101; thus, such a signal cannot be patentable subject matter. The Supreme Court has established that claims including physical but transitory forms of signal transmission such as radio broadcasts, electrical signals through a wire, and light pulses through a fiber-optic cable (so long as those transmissions convey information encoded in the manner disclosed and claimed by Nuijten) are not directed to statutory subject matter so a signal per se is still non-statutory. See *In re. Nuijten*, 84 USPQ2d 1495 and the rationale therein. Limitations recited in claims 37-39 do not cure § 101 issue, and, therefore, rejected on the same basis.

Deleted: ¶

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-24, 26-38, and 40-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehlers et al. (US 5,572,438).**

Ehlers teaches a method for automatic management of demand for non-durables, said method comprising:

Claims 1, 20, 34, 36, 40-42,

providing at End-users' premises specialized electronic boxes (C. 8, L. 12-18; C. 9, L. 42), having microprocessor capability for performing the following functions:

receiving broadcast control signals from a Multi Utility provider (C. 25, L. 9-10, 16-17),

End-users programming said boxes by setting parameter values in accordance with End-users' priorities (C. 10, L. 28-30),

broadcasting from a Multi Utility provider a control signal to be received by said boxes (C. 12, L. 17-18),

said boxes taking automatic turn-off or turn-on action for some non-durable consuming apparatuses in accordance with stored control algorithms, parameter values set by said End-users and information provided by said control signal (C. 13, L. 41-59).

Ehlers does not explicitly teach determining whether information contained in said broadcast control signals, stored algorithms and End-user adjustable parameter value settings satisfies a condition for any connected non-durable consuming apparatus to be switched on, and if so, turning connected non-durable consuming apparatuses on, if not, turning connected non-durable consuming apparatuses off.

However, Ehlers teaches calculating a status flag of each device on the system, checking the status flag and generating a command to restore power to the load, said status flag is changed whether the load in ON or OF condition, wherein said status flag is changed, also, during timed event (C. 25, L. 32-36).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ehlers to include calculating whether ON or OFF constitutes a correct condition for any connected non-durable consuming apparatus, on the basis of information contained in said broadcast control signals, stored algorithms and End-user adjustable parameter value settings, turning connected non-durable consuming apparatuses on and off in accordance with the results of said

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calculating, as suggested in Ehlers, because it would advantageously prevent the load from being turned on when the load shedding operation was initiated by the power utility, as specifically stated in Ehlers (C. 25, L. 37-41).

Claim 2. The method of claim 1, wherein said End-users set parameter values in accordance with estimated importance (priority) of their various apparatuses (C. 12, L. 32-33; C. 29, L. 59-63).

Claim 3. The method of claim 1, wherein said End-users set parameter values based on pricing of the non-durables (C. 12, L. 17-18).

Claim 4. The method of claim 1, wherein said Multi Utility provider broadcasts a control signal containing pricing information regarding said non-durables (C. 12, L. 2-18; C. 15, L. 7-8).

Claim 5. The method of claim 1, wherein said End-users set parameter values based on pricing of the non-durables (C. 12, L. 17-18).

Claim 6. The method of claim 1, wherein said Multi utility provider broadcasts a control signal containing information regarding rationing (C. 3, L. 18-22).

Claim 7. The method of claim 1, wherein said Multi Utility provider provides at least one of electrical energy, thermal energy, gas and freshwater to a community of End-users (C. 15, L. 7-8).

Claims 8 and 9. The method of claim 1, wherein said Multi Utility provider broadcasts the control signal via at least one commercial radio broadcasting station (C. 3, L. 7-9; C. 9, L. 26-32).

Claim 10. The method of claim 1, wherein said Multi Utility provider broadcasts the control signal via a satellite radio broadcast system (use of TV suggests satellite communication).

Claim 11. The method of claim 1, wherein said boxes transmit back consumption values via any of a telephone network and a mobile telephone network (C. 15, L. 12).

Claim 12. The method of claim 1, wherein communication between said electronic boxes and said non-durable consuming apparatuses inside said End-users' premises is effected by use of PLC technology, preferably in accordance with an X10 standard (C. 15, L. 14).

Claim 13. The method of claim 1, wherein any one of said electronic boxes is physically or functionally divided in an intelligent home gateway and a metering gateway, said intelligent home gateway receiving said control signals, decoding them, determining ON and OFF conditions for all connected apparatuses and transmitting turn-off and turn-on commands to bring said apparatuses into the determined condition, while also communicating with said metering gateway, and said metering gateway performing two-way communication with said intelligent home gateway, performing communication with at least one non-durables metering device, and transmitting at least metering data to said Multi Utility provider (same reasoning as applied to claim 1).

Claim 14. The method of claim 13, wherein said intelligent home gateway transmits commands for turning connected apparatuses in an End-user's premises off and on, via a Power Line Carrier (PLC) system, preferably an X10 system (C. 5, L. 22).

Claim 15. The method of claim 13, wherein said intelligent home gateway turns off connected apparatuses in an End-user's premises in accordance with non-durable

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price thresholds set by the End-user for respective apparatuses or for respective apparatus groups (see reasoning applied to claim 1).

Claim 16. The method of claim 13, wherein said intelligent home gateway turns off connected apparatuses in an End-user's premises in accordance with a rationing command from said Multi Utility provider and non-durable consuming apparatus priority settings entered by the End-user (C. 3, L. 18-22 and reasoning applied to claim 1).

Claim 17. The method of claim 1, wherein non-durables production in distributed generation units (DG) attached to any of industrial End-users, commercial End-users and groups/communities of private End-users, is governed by said electronic boxes and in accordance with the End-users' settings and priorities (See reasoning applied to claim 1).

Claim 18. (New) The method of claim 17, wherein a distributed generation unit (DG) attached to a group/community of private End-users is governed by an algorithm taking all said private End-users' settings and priorities into consideration, said algorithm being stored in a computer memory in a computer dedicated for controlling said distributed generation unit and being in communication with said electronic boxes (See reasoning applied to claim 1).

Claim 19. The method of claim 1, wherein service restoration from said Multi Utility provider after an outage situation is effected by broadcasting restoration signals to bring about step-wise turning on loads at End-users' premises by appropriate action by said electronic boxes (C. 25, L. 16-20).

Claims 21-24, 26-33, 35, 37 and 38, see reasoning applied above.



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Claims 43 and 45. The method of claim 1, wherein said method further comprises the step of: providing to the End-users prices in real time (C. 15, L. 7-8; C. 32, L. 46-48).

Claims 44 and 46. The method of claim 1, wherein said method further comprises the step of: said boxes transmitting back to said Multi Utility provider instant or semi-instant non-durable consumption values at said End-users' premises (C. 15, L. 9-11), thereby collectively influencing market pricing of said non-durables (C. 32, L. 46-55).

**Claims 25 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehlers et al. (US 5,572,438) in view of Ehlers et al. (US 2004/0117330 A1).**

Claims 25 and 39. Ehlers '438 teaches all the limitations of claims 25 and 29, except that said broadcasting network includes microprocessor capability for encrypting data to be broadcast to End-users.

Ehlers '330 teaches a method and system for controlling usage of a commodity, wherein data communicated between end users and utility provider is encrypted [0302].

In this case each of the elements of the cited references combined by the Examiner performs the same function when combined as it does in the prior art. Thus, such a combination would have yielded predictable results. See *Sakraida*, 425 U.S. at 282, 189 USPQ at 453. Therefore, Supreme Court Decision in *KSR International Co. v. Teleflex Inc.* (KSR, 82 USPQ2d at 1396) forecloses the argument that a specific teaching, suggestion, or motivation is required to support a finding of obviousness. See the recent Board decision *Ex arte Smith*, --USPQ2d--, slip op. at 20, (Bd. Pat. App. & Interf. June 25, 2007).

### ***Response to Arguments***

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Applicant's arguments filed 11/24/2008 have been fully considered but they are not persuasive.

Regarding claim 36, the examiner maintains his position because the term "control signal" is confusing, and does not provide clear understanding of what is being claimed here. The signal may reflect instructions, but what is the signal? Accordingly, the scope of this claim is not clear.

Regarding claim 41, the claim is vague and indefinite, because it is not clear which part of the claim represents known features of the prior art or states intended use of the invention, and which recites novel features of the invention.

In response to applicant's argument that the prior art fails to disclose providing at End-users' premises specialized electronic boxes having microprocessor, it is noted that Ehlers explicitly teaches said feature (C. 8, L. 15-21) (emphasis added):

The system 10 includes a customer premises external unit (CPEU) 12 which includes a communications interface unit 16 and a *first microcomputer 18*; a local area network communications medium 20, which in the exemplary form discussed below is a power line carrier (PLC) bus; *a second microcomputer 22*; a plurality of load sensing and/or load control modules 24; one or more condition detectors 26 (e.g., temperature sensors, motion sensors, burglar alarms, and so forth); and computer programs (hereinafter detailed) executed on the two microcomputers for implementing a variety of functions.

In response to applicant's argument that Ehlers fails to teach receiving broadcast control signals from a Multi Utility provider, it is noted that Ehlers teaches broadcasting a command for a device to turn off (C. 25, L. 9-10).

In response to applicant's argument that Ehlers fails to teach end-users programming said boxes by setting parameter values in accordance with End-users' priorities, the examiner stipulates that Ehlers discloses said feature at C. 10, L. 28-30.

In response to applicant's argument that Ehlers fails to teach that said boxes taking automatic turn-off or turn-on action for some non-durable consuming apparatuses in accordance with stored control algorithms, parameter values set by said End-users and information provided by said control signal, it is noted that Ehlers teaches that in accordance with an algorithm, screens are presented to the customer on the display of second microcomputer 22 for entering parameter values (C. 13, L. 41-59), and the automatic turn-off or turn-on action is conducted following receiving the broadcasted control signal (C. 25, L. 9-10).

In response to applicant's argument that Ehlers fails to teach providing to the End-users prices in real time, it is noted that Ehlers discloses receiving in real-time energy rate broadcasts (C. 15, L. 7-8; C. 32, L. 46-48).

In response to applicant's argument that Ehlers fails to teach that said boxes transmitting back to said Multi Utility provider instant or semi-instant non-durable consumption values at said End-users' premises thereby collectively influencing market pricing of said non-durables, it is noted that Ehlers teaches sending to the utility company customer usage reports (C. 15, L. 9-11) and publishing real-time rates so that consumers can choose the best deal (C. 32, L. 46-55).

The remaining applicant's arguments essentially repeat the arguments presented above; therefore, the responses presented by the examiner above are equally applicable to the remaining applicant's arguments.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Igor Borissov whose telephone number is 571-272-6801. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Igor N. Borissov/

Primary Examiner, Art Unit 3628

02/02/2009